

**CLAIMS:**

1. A composite printhead supporting structure for a pagewidth printhead assembly, the assembly having a plurality of like printhead modules disposed along a length of the supporting structure, the structure comprising:
  - a composite beam elongated in the direction of the printhead and being at least as long as the printhead and formed from odd number of uninterrupted layers, there being a pair of outer layers of equal thickness symmetrically disposed about and laminated to a core, the coefficient of thermal expansion of the core and the outer layers providing a coefficient of expansion, in the beam, substantially equal to that of the modules.
2. The support structure of claim 1, wherein:
  - all of the layers are symmetrically disposed about an axis of the beam.
3. The support structure of claim 1, wherein:
  - the outer layers are made from invar.
4. The support structure of claim 1, wherein:
  - the coefficient of thermal expansion of the outer layers and the core is different.
5. The support structure of claim 1, and further comprising:
  - a plurality of printhead modules positioned at a regular interval along the beam.
6. The support structure of claim 5, wherein:
  - the printhead modules are all silicon MEMS type modules.
7. The support structure of claim 1, wherein:
  - the layers are hot rolled.
8. The support structure of claim 7, wherein:
  - the layers are three in number and the core has a coefficient of thermal expansion greater than that of silicon.

9. The support structure of claim 4, wherein:  
the coefficient of thermal expansion of one material is greater than that of silicon  
and the coefficient of thermal expansion of the other material is less than that of  
silicon.

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10. The support structure of claim 6, wherein:  
the modules further comprise a silicon substrate in which is formed an array of ink  
ejector nozzles.

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11. The support structure of claim 1, wherein:  
the coefficient of thermal expansion of the beam is about  $2.5 \times 10^{-6}$  metres per  
degree Celsius.

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